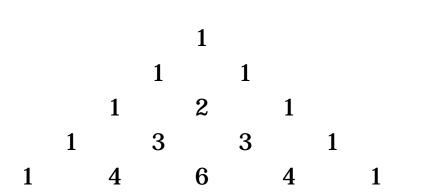
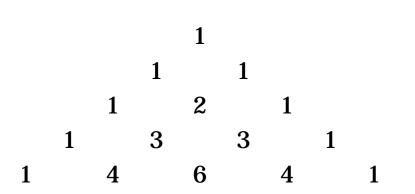
# Pascal triangle

How many levels? (1-13): 9



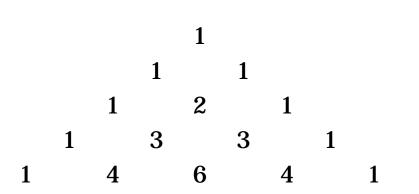
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a |   |   |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b |   |   |   |   |   |   |   |   |   |



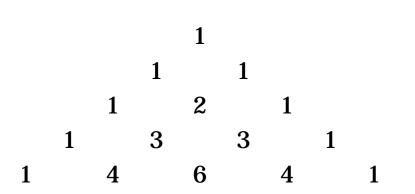
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 |   |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b |   |   |   |   |   |   |   |   |   |



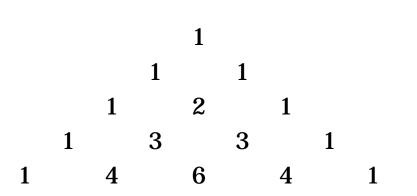
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 |   |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |



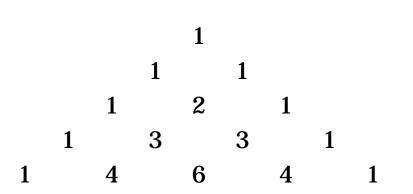
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |



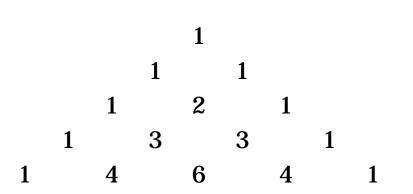
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 2 | 1 |   |   |   |   |   |   |



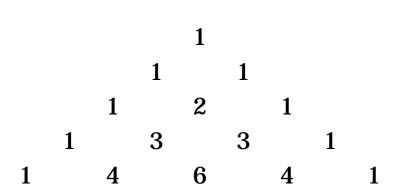
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 2 | 1 |   |   |   |   |   |   |



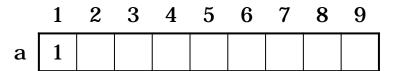
|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 3 | 3 | 1 |   |   |   |   |   |



|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 3 | 3 | 1 |   |   |   |   |   |



|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |

a[1] = 1;

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 |   |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |

a[1] = 1;

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |

$$a[1] = 1;$$

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 1 |   |   |   |   |   |   |   |

$$a[1] = 1;$$

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 2 | 1 |   |   |   |   |   |   |

$$a[1] = 1;$$

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 2 | 1 |   |   |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 2 | 1 |   |   |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 3 | 3 | 1 |   |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 3 | 3 | 1 |   |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

|   |   |   |   |   | _ | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 3 | 3 | 1 |   |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 4 | 6 | 4 | 1 |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 4 | 6 | 4 | 1 |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| b | 1 | 4 | 6 | 4 | 1 |   |   |   |   |

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
a[1] = b[1];
a[2] = b[2];
```

```
b[1] = a[1];
b[2] = a[1] + a[2];
b[3] = 1;
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
b[1] = a[1];

b[2] = a[1] + a[2];

b[3] = a[2] + a[3];

b[4] = 1;

a[1] = b[1];

a[2] = b[2];

a[3] = b[3];

a[4] = b[4];
```

```
b[1] = a[1];

b[2] = a[1] + a[2];

b[3] = a[2] + a[3];

b[4] = a[3] + a[4];

b[5] = 1;

a[1] = b[1];

a[2] = b[2];

a[3] = b[3];

a[4] = b[4];

a[5] = b[5];
```

```
a[1] = 1;
```

```
a[1] = b[1];

a[2] = b[2];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
```

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
a[5] = b[5];
```

```
a[1] = 1;
```

$$a[1] = b[1];$$
  
 $a[2] = b[2];$ 

```
a[1] = b[1];
a[2] = b[2];
a[3] = b[3];
a[4] = b[4];
a[5] = b[5];
```

```
for (int k = 1; k \le 2; k++)
   a[k] = b[k];
for (int k = 1; k \le 3; k++)
   a[k] = b[k];
for (int k = 1; k \le 4; k++)
   a[k] = b[k];
for( int k = 1; k \le 5; k++)
   a[k] = b[k];
```

```
for (int k = 1; k \le 2; k++)
                                            a[k] = b[k];
                                         for( int k = 1; k \le 3; k++)
for (int i = 2; i < 6; i++)
                                            a[k] = b[k];
   for( int k = 1; k \le i; k++)
      a[k] = b[k];
                                         for( int k = 1; k \le 4; k++)
                                            a[k] = b[k];
                                         for( int k = 1; k \le 5; k++)
                                            a[k] = b[k];
```

```
a[1] = 1;
```

```
b[1] = a[1];
b[2] = 1;
```

```
a[1] = 1;
```

```
b[1] = a[1]:
for ( int j = 2; j <= 1; j ++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
b[1] = a[1]:
for ( int j = 2; j <= 2; j ++ )
   b[i] = a[i-1] + a[i];
b[i+1] = 1;
b[1] = a[1]:
for ( int j = 2; j <= 3; j ++ )
   b[i] = a[i-1] + a[i];
b[i+1] = 1;
b[1] = a[1];
for ( int j = 2; j <= 4; j ++ )
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
for (int i = 1; i < 5; i++)
   b[1] = a[1]:
   for ( int j = 2; j <= i; j ++ )
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
```

```
b[1] = a[1];
for (int j = 2; j <= 1; j++)
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
b[1] = a[1]:
for (int j = 2; j \le 2; j++)
   b[i] = a[i-1] + a[i];
b[i+1] = 1:
b[1] = a[1]:
for ( int j = 2; j <= 3; j ++ )
   b[i] = a[i-1] + a[i];
b[i+1] = 1;
b[1] = a[1];
for (int j = 2; j \le 4; j++)
   b[j] = a[j-1] + a[j];
b[i+1] = 1;
```

```
for( int i = 2; i < 6; i++)
{
   for( int k = 1; k \le i; k++)
     a[k] = b[k];
for( int i = 1; i < 5; i++)
   b[1] = a[1];
   for( int j = 2; j <= i; j ++)
      b[j] = a[j-1] + a[j];
   b[i+1] = 1;
```

```
for (int i = 2; i < 6; i++)
                                     for( int i = 1; i < 5; i++)
{
                                     {
   for( int k = 1; k \le i; k++)
                                        for (int k = 1; k \le i+1; k++)
      a[k] = b[k];
                                           a[k] = b[k];
                                     }
}
for (int i = 1; i < 5; i++)
                                     for (int i = 1; i < 5; i++)
   b[1] = a[1];
                                        b[1] = a[1];
   for( int j = 2; j <= i; j ++ )
                                        for ( int j = 2; j <= i; j ++ )
      b[j] = a[j-1] + a[j];
                                           b[j] = a[j-1] + a[j];
                                       b[i+1] = 1;
   b[i+1] = 1;
                                     }
```

```
for (int i = 1; i < 5; i++)
                                     {
for( int i = 1; i < 5; i++)
                                        for (int k = 1; k \le i+1; k++)
{
                                           a[k] = b[k];
   b[1] = a[1];
                                     }
   for( int j = 2; j <= i; j ++)
     b[j] = a[j-1] + a[j];
                                    for( int i = 1; i < 5; i++)
   b[i+1] = 1;
                                        b[1] = a[1];
   for( int k = 1; k \le i+1; k++)
                                        for ( int j = 2; j <= i; j ++ )
      a[k] = b[k];
                                           b[j] = a[j-1] + a[j];
                                        b[i+1] = 1;
                                     }
```

```
int main()
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )</pre>
      b[1] = a[1];
      for( int j = 2; j \ll i; j \leftrightarrow j
          b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
          a[k] = b[k];
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                             2
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for ( int j = 2; j <= i; j ++ )
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a
                                        1 2 3 4 5 6 7 8 9
                          k
                                     b
int main()
{
  int level, a[100], b[100];
  cout << "How many levels? (1-13): ";</pre>
  cin >> level;
  a[1] = 1;
  for( int i = 1; i < level; i++ )
   {
     b[1] = a[1];
     for (int j = 2; j <= i; j++)
        b[j] = a[j-1] + a[j];
     b[i+1] = 1;
     for( int k = 1; k \le i+1; k++)
        a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a
                                        1 2 3 4 5 6 7 8 9
                          k
                                     b
int main()
{
  int level, a[100], b[100];
  cout << "How many levels? (1-13): ";</pre>
  cin >> level;
  a[1] = 1;
  for( int i = 1; i < level; i++ )
   {
     b[1] = a[1];
     for (int j = 2; j <= i; j++)
        b[j] = a[j-1] + a[j];
     b[i+1] = 1;
     for( int k = 1; k \le i+1; k++)
        a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a
                                        1 2 3 4 5 6 7 8 9
                          k
                                     b
int main()
{
  int level, a[100], b[100];
  cout << "How many levels? (1-13): ";</pre>
  cin >> level;
  a[1] = 1;
  for( int i = 1; i < level; i++ )
   {
     b[1] = a[1];
     for (int j = 2; j <= i; j++)
        b[j] = a[j-1] + a[j];
     b[i+1] = 1;
     for( int k = 1; k \le i+1; k++)
        a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                                     a
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
     b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                            2
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

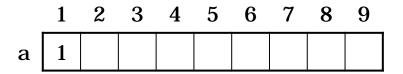
```
1 2 3 4 5 6 7 8 9
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                           k
                                     b
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

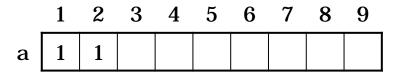
```
1 2 3 4 5 6 7 8 9
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                                              3
                           k
                                     b
                                                 1
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

```
1 2 3 4 5 6 7 8 9
                                     a | 1
                                        1 2 3 4 5 6 7 8 9
                                              3
                           k
                                     b
                                                 1
int main()
{
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
  a[1] = 1;
   for( int i = 1; i < level; i++ )
   {
      b[1] = a[1];
      for (int j = 2; j <= i; j++)
         b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
         a[k] = b[k];
  }
```

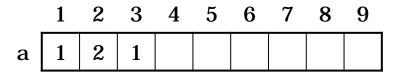
```
int main()
   int level, a[100], b[100];
   cout << "How many levels? (1-13): ";</pre>
   cin >> level;
   a[1] = 1;
   for( int i = 1; i < level; i++ )</pre>
      b[1] = a[1];
      for( int j = 2; j \ll i; j \leftrightarrow j
          b[j] = a[j-1] + a[j];
      b[i+1] = 1;
      for( int k = 1; k \le i+1; k++)
          a[k] = b[k];
```



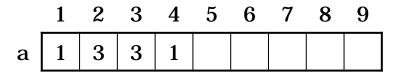
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```



```
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    1

    1

    1

    2

    1

    3

    3

    1

    4

    6

    4

    1
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |
|---|---|---|---|---|---|---|---|---|---|--|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |  |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;

a[1] = 1;
for( int i = 1; i < level; i++)
{
    for( int j = 2; j <= i; j++)
        a[j] = a[j-1] + a[j];
    a[i+1] = 1;
}
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;</pre>
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 |   |   |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;

a[1] = 1;
for( int i = 1; i < level; i++)
{
    for( int j = 2; j <= i; j++)
        a[j] = a[j-1] + a[j];
    a[i+1] = 1;
}
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;</pre>
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;

a[1] = 1;
for( int i = 1; i < level; i++)
{
    for( int j = 2; j <= i; j++)
        a[j] = a[j-1] + a[j];
    a[i+1] = 1;
}
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;</pre>
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 |   |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;
a[1] = 1;
for(int i = 1; i < level; i++)
a[j] = 2; j <= i; j++)
a[j] = a[j-1] + a[j];
a[i+1] = 1;
}
```

|   |   |   |   | 4 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;
a[1] = 1;
for(int i = 1; i < level; i++)
a[j] = 2; j <= i; j++)
a[j] = a[j-1] + a[j];
a[i+1] = 1;
}
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 1 |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;

a[1] = 1;
for( int i = 1; i < level; i++)
{
    for( int j = 2; j <= i; j++)
        a[j] = a[j-1] + a[j];
    a[i+1] = 1;
}
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;</pre>
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |
|---|---|---|---|---|---|---|---|---|---|--|
| a | 1 | 3 | 4 |   |   |   |   |   |   |  |

```
a[1] = 1;
a[2] = 1;
a[2] = a[1] + a[2];
a[3] = 1;

a[1] = 1;
for( int i = 1; i < level; i++)
{
    for( int j = 2; j <= i; j++)
        a[j] = a[j-1] + a[j];
    a[i+1] = 1;
}
a[2] = a[1] + a[2];
a[3] = a[2] + a[3];
a[4] = 1;</pre>
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 |   |   |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[3] = 1;
a[3] = 1;
a[2] = a[1] + a[2];
a[4] = 1;
a[3] = a[2] + a[3];
a[3] = a[1] + a[2];
a[3] = a[1] + a[2];
a[3] = a[1] + a[3];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 |   |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 1 | 1 |   |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 |   |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[3] = 1;
a[3] = 1;
a[2] = a[1] + a[2];
a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
a[1] = 1;
a[1] = 1;
a[i+1] = 1;
a[i+1] = 1;
for(int j = i; j >= 2; j--)
a[j] = a[j-1] + a[j];
}
a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 2 | 1 | 1 |   |   |   |   |   |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |  |
|---|---|---|---|---|---|---|---|---|---|--|
| a | 1 | 2 | 3 | 1 |   |   |   |   |   |  |

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| a | 1 | 3 | 3 | 1 |   |   |   |   |   |

```
a[1] = 1;
a[2] = 1;
a[3] = 1;
a[3] = 1;
a[2] = a[1] + a[2];
a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
a[1] = 1;
a[1] = 1;
a[i+1] = 1;
a[i+1] = 1;
for(int j = i; j >= 2; j--)
a[j] = a[j-1] + a[j];
}
a[4] = 1;
a[3] = a[2] + a[3];
a[2] = a[1] + a[2];
```

```
int main()
   int a[100];
   int n;
   cout << "Levels? (1-13): ";</pre>
   cin >> n;
   a[1] = 1;
   for( int i = 1; i < n; i ++)
      a[i+1] = 1;
      for( int j = i; j >= 2; j--)
         a[j] = a[j-1] + a[j];
```

```
int main()
   int a[100];
   int n;
   cout << "Levels? (1-13): ";
   cin >> n;
   a[1] = 1;
   for( int i = 1; i < n; i ++)
      a[i+1] = 1;
      for( int j = i; j >= 2; j--)
         a[j] = a[j-1] + a[j];
```